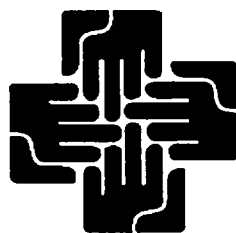


WORLD RELIEF CORPORATION/  
CHRISTIAN SERVICE SOCIETY

**CHILD SURVIVAL X**

Oct. 1, 1994 to Sept. 30, 1997

**FINAL EVALUATION**



**WorldRelief**

**Khulna, Bangladesh  
September 1997**

**Christian Service Society  
Mr. Mark Munshi  
PO Box 91, Khulna**

**Evaluator: Donna Sillan**

**World Relief Corp.  
Dr. Warren Berggren  
PO Box WRC  
Wheaton, IL 60189**

**Coop. Agreement No:  
PDC-0500-A-00-1117-00**

## FOREWORD

Christian Service Society has accumulated a wealth of goodwill working over 20 years with poor communities in Bangladesh. Working through this reputable local NGO partner has proven to be a remarkable asset given the project's impressive performance results'. The team would like to thank CSS for their superb hospitality and grace in supporting the evaluation. Logistics flowed smoothly and efficiently. Project staff were ready to share their experiences, teaching the evaluation team a tremendous amount.

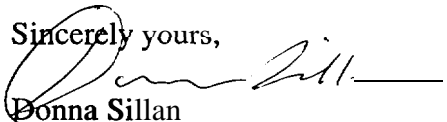
Special recognition is well earned by Mr. Dulal, the project's Health Educator. He worked tirelessly to arrange the evaluation process, mobilizing groups of people quickly. His ability to accomplish this feat proves his closeness to the communities he serves. His participation was invaluable given his high level of awareness of the entire program.

Both Paul Munshi, founder of CSS, and Mark Munshi, Director of CSS, were gracious hosts, providing comfortable accommodations within their compound. Pradit, our cook, provided delectable nourishment, certainly more than enough for adequate growth.

Dr. Warren Berggren and Dr. Gretchen Berggrens' combined six decades of experience in preventive health has enabled families to practice protective behaviors around the world. It is an honor to have their "eyes" examine a program, as they are able to clearly see the many layers of human, technical and medical processes that occur and understand their interplay. Given their tremendous energy and enthusiasm, they provide an ideal to aspire towards.

This final evaluation report is dedicated to the Well-Being of CSS's children and parents, as well as children around the world. The Child Survival program's endeavor of reaching those in need and facilitating a process whereby protective health behaviors are adopted is an empowering effort. It not only enhances parents' self-efficacy and self-reliance, but affects positive changes in health outcomes in women and children, preventing needless suffering. The evaluation of this project reflected that clear commitment and mission of the people working directly in the field.

Sincerely yours,

  
Donna Sillan

**Acronyms:**

ARI	Acute Respiratory Illness
CHW	Community Health Worker
CSP	Child Survival Project
c s s	Christian Service Society
FWA	Family Welfare Assistant
FWV	Family Welfare Visitor
GMC	Growth Monitoring & Counseling Session
HH	Head of Household
KPC	Knowledge, Practices and Coverage Survey
LSLS	Ladies Savings and Loan Society
MM	Maternal Mortality
SK	Shishu Kabar
TT	Tetanus Toxoid
TBA	Traditional Birth Attendant
VAC	Vitamin A Capsule

## TABLE OF CONTENTS

1. Summary and Recommendations.....	1
2. Project Background.....	2
3. Recommendations of the Mid-Term Evaluation.....	7
4. Capacity Building and Sustainability.....	9
5. Presentation and Discussion of Final Survey Findings.....	13
6. Issues Identified by Evaluation Team, Project, or PVO.....	22
7. Innovations and Lessons.....	23
8. Achievements and Constraints.....	28

## APPENDICES

- I. Final Evaluation Team Members
- II. Evaluation Process
- III. KPC Reliability
- IV. Mid-Term Evaluation Summary and Recommendations
- V. Evaluator's CV

## 1. SUMMARY and RECOMMENDATIONS

From September 8 to 17, 1997, an evaluation team consisting of eight members conducted a final evaluation, led by an external evaluator. Following a final KPC survey, the team visited all five project sites located in five unions. Quantitative analysis, using the KPC survey results as a basis, included cross-checking data collected through the regular monitoring tools (community health worker [CHW] rosters, nutrition registers, growth charts, vital event reports, etc.), reviewing data boards, and quantifying information gathered during the random home visits.

Qualitative evaluation analysis included key informant interviews, focus group discussions and home visits. The team conducted 21 focus group discussions, 20 group interviews of project staff, 15 random home visits and interviews with 5 government officials. Over 140 persons participated in the evaluation process. The findings were shared with USAID's Population Development Officer Dr. Charles Habis and Program Specialist Quasem Bhuyan on the final day of the evaluation at the US Embassy in Dhaka.

Christian Service Society, with assistance from World Relief, successfully implemented a three-year USAID-funded Child Survival project from 1994 to 1997 in Khulna District, covering a population of 130,000. It is a comprehensive, community-based CHW/TBA program which met its objectives, as measured by the KPC survey. EPI coverage, ORT and ARI knowledge, and family planning acceptance have reached beyond set targets.

Growth monitoring, followed by feeding demonstrations for children who fail to thrive, have successfully rehabilitated 83% of the 3,675 second and third degree malnourished under-two year olds who attended. 3,050 mothers successfully recuperated their children from malnutrition, thereby affirming that they have adopted improved practices. The method is an appropriate model for Bangladesh, as it does not introduce new foods, nor does it create technical rehabilitation centers. Rather it is a community held program carried out by mother trainers in small groups in homes. Using the community's own well-nourished children's feeding practices for reference, it points to practices that children in similar circumstances do to cope and thrive.

Within three years, the CSS program has made remarkable strides in training mothers to adopt preventive health behaviors. The indicators of such behaviors confirm that both knowledge and practices have changed. The health team delivered on all inputs and outputs. All but one indicator improved over the baseline (the exception being exclusive breastfeeding) and exceeded the targets set in the DIP in all but three indicators (breastfeeding 61% vs. target 75%; postpartum Vit A 67% vs. target 75%; access to kitchen gardens 68% vs. target 70%).

Major constraints of the project included the lack of continuity in leadership. Three different doctors occupied the post of Child Survival Project Director during the project's three-year course. The project's health trainer ably assumed responsibility of providing consistent direction. Working closely with the government health system, while mobilizing communities to participate in the project's activities, enhanced project sustainability. Micro-enterprise development was ongoing during the life of the project and will continue to lend money to poor women for income-generating activities.

Interventions recommended to continue after the close of the grant are growth monitoring with nutrition demonstration follow-up, TBA training, and the loan program with micro-credit for families. Specific recommendations include:

## **A. Staffing**

### **1. Promote CHWs and Shishu Kabar trainers to supervisory positions:**

Rather than rely on two layers of male supervisors (15 Union Supervisors and 5 Union Officers) the CHWs and SK trainers themselves could become the supervisors and trainers of other CHWs. The 103 CHWs could be supervised by 5 SK trainers, 2 Maternal Health Trainers and the/female Union Supervisor already in place. This would place more emphasis on women's empowerment with women leading women.

### **2. Train male officers in Community Development and Leadership Development:**

The community process was weak in involving local leaders in the project planning and implementation phase. This resulted in a program that depended upon the supervisors and union officers. The community development skills of the male union officers and supervisors should be strengthened in order to develop the leadership capacity among males in the community.

### **3. Integration of CHW and Family Planning workers:**

There are two parallel systems operating at the village level which is a reflection of the government's MOH structure at the national level and the schism between health and family planning. The MOH is planning to integrate the two entities next year. In the meanwhile, the CHWs could be trained to assist the FWA in performing their job. The MOH FP continues efforts begun many years ago to integrate Health and Family Planning, but the two categories of worker operate parallel to each other at the thana, union and village levels. CHW duties could be expanded to assist FWA in their work at the village level.

## **B. Technical Health Issues**

### **1. Maternal Mortality:**

- Support the MOH FP in Paikgacha to develop the capacity to do Cesarean sections and blood transfusions.
- Continue "strong program of family planning motivation to prevent maternal deaths."
- Provide iron/folate tablets to all pregnant women who attend ANC.
- Collaborate with Family Planning and Health workers to continue TBA training and to provide pre-sterilized, renewable TBA kits.

### **2. Acute Respiratory Illness**

- Continue to advocate for uninterrupted supplies of antibiotics at the union level; this problem needs special attention in Koyra union.

### **3. Malnutrition**

- Identify malnourished children in the growth monitoring session and follow them up through the Shishu Kabar.

## **Sustainability**

1. Maintain and expand, if possible, the loan program with micro-credit for CSP families.

## **2. PROJECT BACKGROUND**

The child survival project (CSP) area includes 4 very poor contiguous rural unions in Paikgacha Thana (Godaipur, Haridhali, Kapilmoni, Rurali), and one adjacent rural union in Koyra Thana (Amadi). The population of the entire CSP area is 130,143, which is 73% Muslim and 27% Hindu and less than 1% other.<sup>1</sup> Literacy in the Khulna District is low at 44%.<sup>2</sup> In the CSP

---

<sup>1</sup> CSP Census, January 1995.

area 71% of women have no formal education, 18% have completed grade 5, 10% have completed grade 10 and only 2% have higher education. The population is poor with an average per capita income of \$180 per year.<sup>3</sup> The CSP area lies in lowlands with many rivers which are subject to seasonal flooding, which exacerbates the problems of poverty, morbidity and mortality.

Constraints affecting the CSP areas include:

1. Annual flooding which jeopardizes harvests and makes travel difficult.
2. Religious restrictions on Muslim women, many of whom *are in purduh* (the seclusion of women from public observation) and rarely leave the home.
3. The strong preference for male children.
4. Traditional beliefs held by many mothers-in-law about child rearing. Most women are expected to obey their mothers-in-law in regard to child rearing practices.

The project location was chosen for the following reasons:

- a. The communities contain large numbers of poor people.
- b. The communities are adjacent to the previous CSIII and CSVII project areas which makes it easier to build on previous experience and transfer lessons learned to the current CSP area.
- c. MOHFP officials have asked WRC's indigenous partner, the Christian Service Society (CSS), to implement a CS project in the area to address the very serious health and poverty problems.

The MOHFP services in Khulna District are headed by the Civil Surgeon. The Civil Surgeon supervises Medical Officers in charge of Diarrhea Control, EPI and Vitamin A who oversee the health services at the Thana level. Each Thana has a health complex which includes a hospital of approximately 30 beds. The health complex is administered by the Thana Health and Family Planning Administrator, a Resident Medical Officer, 3 specialists (Gynecology, Internal Medicine and Surgery), a dentist, 3 Medical Officers and 4-5 nurses. Each Thana also has a Thana Family Planning Office which is administered by the Thana Family Planning Officer. Services available at the health complex include:

1. Education on prevailing health problems and methods of prevention or control.
2. Tubewell and latrine promotion.
3. Maternal and Child Health (MCH) and Family Planning Services including prenatal care, management of complicated obstetrics by a gynecologist and referral for Caesarian section of blood transfusion to the district hospital at Khulna.
4. Immunization against the six vaccine preventable diseases and tetanus toxoid (TT) for fertile age women.
5. Appropriate treatment of common diseases and injury.

---

<sup>2</sup> PROGOTIR PATHEY: Progress Towards the Achievement of the Goals for the 1990s. Bangladesh Bureau of Statistics, Government of Bangladesh, UNICEF, August 1994.

<sup>3</sup> CSP Census, January 1995.

6. Prevention and control of endemic diseases including control of diarrheal diseases (CDD) and case management of diarrhea.
7. Treatment of tuberculosis through the Tuberculosis Center at the thana health complexes including sputum tests and chest X-rays.
8. Periodic deworming of school children with Mebendazole.
9. Provision of essential drugs.
10. Massive house-to-house vitamin A campaigns every 6 months and vitamin A treatment of xerophthalmia and after cases of measles, diarrhea and ARI.

Each union has a Subcenter with 1 Medical Officer, 1 Medical Assistant and 1 Pharmacist and a Family Welfare Center with 1 Medical Assistant, a Family Welfare Visitor (FWV), a Family Welfare Assistant (FWA) and an assistant. Services provided by centers and subcenters include most primary health care interventions such as EPI, CDD activities, ARI treatment, nutrition education, vitamin A distribution, growth monitoring (only at the facility), deworming, environmental health and health education. Additionally, the Family Welfare Center provides MCH and family planning services through female FWVs which also operate out of satellite clinics at the ward level. Each FWV is responsible for 1 union or approximately 8 satellite clinics to which she rotates. The ratio of FWVs to the population is 1:25,000. There are 2 thana health complexes, 2 subcenters, 1 family welfare center and 36 satellite clinics in the CSP area.

The MOHFP provides many services but has requested support for WRC/CSS to increase its population's access to health care. MOHFP officials' request for support from WRC/CSS, the low ratio of health workers to the population and the sometimes lack of supply of some treatments indicate that many inhabitants of the area have little access to health care.

### Formal Agreements

Written agreements specify the conditions under which MOHFP and CSP collaborate in the two thanas. Furthermore, quarterly meetings at the thana level are held to discuss any problems and resolutions in the collaboration efforts between the MOHFP and the CSP, and to set the schedule of health posts for the succeeding months.

## PROJECT DESIGN

### Baseline survey

The project's Detailed Implementation Plan, upon information acquired through a baseline survey, revised the objectives previously specified in the project proposal.

	<u>Cooperative Agreement</u>	<u>DIP</u>
Children 12-23 months completely immunized.	80%	90%
Mothers of newborns exclusively breastfeeding until 4 months.	60%	75%
Children 0-23 months weighed bimonthly	60%	70%
Mothers of malnourished children 0-23 months identified at GMC sessions who have attended 2 week nutrition demonstration/rehabilitation sessions.	50%	60%
Mothers receiving 200,000 IU vitamin A in the first month postpartum.	80%	75%
Mothers who have kitchen gardens with vitamin A rich foods (Wording changed to the following.)		



Women 1545 who have access to kitchen gardens with vitamin A rich foods.	70%	70%
Mothers of children O-23 months giving extra meals during the diarrhea recovery period. (Wording changed to the following.)		
Mothers of children O-23 months who continue feeding during diarrhea.	60%	50%
Mothers of children O-23 months who recognize pneumonia and receive appropriate treatment.	-- 60%	50%
Pregnant women consulting a trained provider for antenatal care by the first trimester. (Wording changed to the following.)		
Pregnant women consulting a trained provider for antenatal care.	50%	50%
Pregnant women who eat more than usual.	40%	35%
Women with high-risk pregnancy have access to transport and referral.	50%	dropped
Eligible couples using modern methods of contraceptives.	70%	45%

### Project Design

The WRC/CSS CSX focused primarily on educating women 15-45 and their mothers-in-law to increase their knowledge and change their behaviors in the areas of immunizations, home management of diarrhea, child nutrition (including breastfeeding, weaning, rehabilitation), Vitamin A, acute lower respiratory infection control (ALRI), maternal nutrition, prenatal care and birth spacing. Education of fertile aged women and their mothers-in-law took place during monthly mothers group meetings, Expanded Program of Immunization (EPI)/growth monitoring and counseling (GMC) sessions and during bimonthly home visits.

The project built on experience and lessons learned from the previous CSIII and CSVII projects in unions adjacent to the current project. Successful participatory methods of transmitting health education messages were utilized, and methods which have proven unsuccessful were avoided.

Several additional innovative approaches were used such as the “Hearth” nutrition demonstration/rehabilitation method. This model has proven to be successful in Haiti and Viet Nam. Other innovative approaches include the use of traditional theater “Jatra” and traditional folk songs “Jar-i” since these were widely accepted and drew large audiences in rural areas.

Eligible women and children were enrolled at the time of the project census at the beginning of each project year and registered in each community health worker’s (CHWs) household register.

High risk populations for each intervention were defined as follows:

#### Immunization

Children under 2 who did not have an EPI card  
 Children under 1 not up to date on their immunizations  
 Children 12-23 months with an incomplete immunization schedule  
 Malnourished children

Diarrheal Disease Control: (Target population, children O-23 months)  
 Dehydrated children

Children with bloody diarrhea  
Children with prolonged diarrhea of more than 14 days  
Malnourished children  
Defaulters of the vitamin A supplementation program

Child Nutrition: (Target population, children 0-23 months)

Growth faltering children  
Children with mild-moderate malnutrition  
Children with severe malnutrition  
Defaulters of the vitamin A supplementation program

Vitamin A: (Target population, children 0-7 1 months)

Defaulters of the vitamin A supplementation program  
Night blind children  
Children with recent case of measles  
Children with recent case of diarrhea  
Children with recent case of pneumonia

ALRI: (Target population, children 0-23 months)

Children under 2 months  
Malnourished Children  
Defaulters of the vitamin A supplementation program

Maternal Care/Birth spacing: (Target population, women 15-45)

Women under 18 and over 35  
Women with 4 or more previous children  
Women with an interval of less than 2 years between pregnancies  
Women who had a previous difficult or Caesarian birth  
Women without a TT card or those who have not received at least 2 doses of tetanus toxoid  
Women with signs of anemia or edema  
Women with bleeding since last period  
Women with inadequate weight gain during pregnancy

**Training/supervision**

Three sets of workers were trained. The first group was composed of 5 union officers, 15 supervisors and 103 CHWs, responsible for educating and mobilizing mothers in all project interventions, for home visits and for keeping the household register. Interventions were phased in one at a time every 2 months and 1-2 days (8-16 hours) of initial training was given to CHWs at the beginning of the two month period depending on the needs of each intervention until all interventions were phased in. In the first month after initial training for each intervention, the CHWs practiced what they had learned, with a 1 day (8 hours) refresher training given at the beginning of the second month so that difficulties could be discussed and resolved while the CHW continued practicing and implementing the intervention activities for one more month. CHWs are volunteer workers and, thus, spent 10 hours each week working in their communities.

Supervisors are full-time employees each responsible for a ward which contains an average of 7 CHWs. Supervisors received 10 days of initial training in all interventions and 2 days of refresher training per month. They spent 80% of their time on the field training the CHWs, assisting them at EPI/GMC sessions and monthly mothers meetings and conducting spot checks to 5 village homes for each CHW bimonthly.

The supervisors were supervised by the union officers. Each union officer supervised 3 supervisors. Union officers received the same amount of training as supervisors and spent 20% of their time on the field conducting 3 spot checks of each supervisor bimonthly.

The training objectives for the first set of workers will be evaluated through written post-tests after each initial training session, through supervisory checklists filled out at **EPI/GMC** sessions, at monthly mothers meetings and through spot checks during visits to homes.

The second group of workers trained were 2 maternal health trainers (nurses with midwifery licenses) who trained and supervised 103 TBAs to address specific issues of maternal health such as prenatal care and safe, clean deliveries. TBAs reported to the CHWs in their communities as well as to the maternal health trainer who supervises them. Maternal health trainers received 10 days of initial training at Ad-Din Welfare Center and 1 day of refresher training each month. TBAs received 1 day (8 hours) of initial training on different topics each month and 1 day (8 hours) of refresher training on the previous month's topic. Maternal health trainers spent 25% of their time training TBAs and the remaining 75% of their time in the communities supervising the TBAs through home visits, observing their delivery techniques, and reviewing their records. TBAs live in the community and address concerns as they arise.

A third group of workers--hearth trainers--trained mothers of malnourished children identified during the GMC sessions to rehabilitate their children in **hearth** rehabilitation/demonstration sessions. Five hearth trainers were trained to educate a total of 700 volunteer mothers over a period of three years. Training of hearth trainers was evaluated by 1) a written test given at the end of the training session, 2) an evaluation of the training session filled out by the hearth trainers at the end of the training session, 3) supervisory checklists filled out by the health educator on each hearth trainer and 4) spot checks made by the health educator at the actual hearth sessions. Hearth trainers also evaluated training given by the volunteer hearth trainers by attending the first and last hearth sessions and filling out supervisory checklists for these sessions. Hearth trainers spent 35 hours in the field each week. Volunteer hearth **trainers were** trained for 4 hours for 5 days and spend 2 hours a day for the 12 day sessions preparing foods and educating mothers in food preparation and the feeding of children. The initial training in Hearth of the management staff and health educator was conducted by Lisa Filoramo, MSPH, the nutrition consultant from World Relief HQ.

### 3. MID-TERM RECOMMENDATIONS

Many recommendations of the midterm evaluation team were followed and achieved good results. The mid-course corrections and focus that the MTE provided greatly aided the project in reaching their objectives. All recommendations were not implemented given time constraints and the prioritization process that it required.

**1. Increase attendance at GMCs to exceed 70% coverage. *Achieved.***

The Final KPC indicated that 91% of children had been weighed in the last two months.

**2. Increase effectiveness of Shishu Kabar: *Achieved.***

- **educate husbands & repeat SK sessions if less than 70% of under-2s attended the follow-up session**

The husbands interviewed were aware of Shishu Kabar mostly, through **Jari** singers.

**3. Increase effectiveness TT to achieve 80% : *Achieved***

- Increased from 48% to 88%.

#### **4. Increase Effectiveness Women's Health: *Partly achieved***

- **iron-folate distribution at FW assembly posts/ANC** *not achieved, government commitment to providing tablets regularly not met, resistance to iron tablets in general, CS project staff encouraged increase of iron-rich foods as an alternative strategy.*
- **distribution of TT cards to women of child-bearing age** *achieved, and proved to facilitate high TT coverage rates.*

#### **5. Management and use of data:**

- give local **thana &** union officials list of active CSS workers especially TBAs: *Achieved*
- births and deaths reported to government: *Births yes, deaths no. Did not institute death reporting in this project.*
- TBAs report births/deaths to thana MCH officer: *No, TBAs do not report vital events to the government MCH officer, only the project staff*
- data presented at mothers meetings: *No. Weak on community feedback of data to mothers.*
- work on meshing information system with government reporting system: *No, not a priority.*
- Supervisors trained in LQAS to conduct CHW register checks: *Not achieved.*

#### **6. Human Resources for Child Survival:**

- Untrained TBAs to be reported to MOH: *Not achieved; TBAs are not yet reported and will therefore not be enrolled in the next round of training offered by the government.*
- TBAs trained by project should be reported to the govt. MCH officer: *Yes, achieved.*

#### **7. Supplies and materials for local staff**

- clean-cord-cut packets for TBAs renewed **and** replaced: *yes, but not pre-sterilized. The TBA is expected to boil equipment before use upon being called to delivery.*

#### **8. Supervision and monitoring**

- leaner organizational structure and focused on women helping women: *No, top-heavy male continued to dominate supervisory structure.*
- RN-midwife trainers & SK trainers to work closely with F'WAs: *No, still dual systems instituted from the top level down to the field.*
- first support SK trainers and RN's if funding reduced: *Recommended and agreed upon.*
- encourage CHWs while continuing to press for quality improvement: *Achieved*
- more responsibility on CHW on 2nd half of project rather than supervisors (conduct GMC and mother's meetings): *Yes, partly, but not as much as authority was shifted as hoped.*

#### **9. Referral Relationships**

- reduce maternal mortality with MOH and other PVO's: *No, not a priority of project, although high family planning promotion and acceptance affects impact MM.*
- explore equipping new Paikgacha hospital with C-section capability: *Achieved*
- SK follow-up with treatment of children who continue to fail and identify missing elements in health centers: *Partially achieved while CSS physician on staff.*
- Rule out TB, supplying CSS doctor with Mantoux or PPD testing. *No achieved.*

#### **ACTION TAKEN by CSX project from two previous final evaluations:**

CSS had implemented two Child Survival grants in previous years, CSIII and CSVII. These project's final evaluation recommendations were reviewed to determine if lessons learned were carried over to the current Child Survival project. In fact, recommendations were followed up and carried out. This previous experience proved to enhance the quality and effectiveness of CSX.

### CSIII Recommendations:

1. **Add a public health specialist:** Hired a doctor to be the CSP Director for CSX.
2. **Develop a comprehensive management information system:** CHW Registers were developed with the project staff with Dr. Muriel Elmer from WRC headquarters.
3. **Strengthen health education and training:** The entire CSX project has focused on providing health education and training. It is a health training program. The Health Educator, a key staff member, participated in training provided by the-MOH Health complex, by BRAC, by local NGOs, and by the Shishu Kabar training provided by Lisa Filoramo from WRC Headquarters.

### CSVII Recommendations:

1. **Collaboration with government:** Great strides have been made to work closely with MOH and the Civil Surgeon's office speaks highly of their close working relationship with CSS.
2. **Supervision:** Tight supervision was provided by a layer of Union Supervisors (3 per union) supervised by a Union Officer.
3. **Health Information System:** The development of an HIS has progressed and CHW registers of children and mothers are updated and useful. Vital events reporting is starting.

## 4. CAPACITY-BUILDING AND SUSTAINABILITY

### a) Project's relationship to other health-related activities in the Project area:

The Ministry of Health and Family Welfare (MOI-IFW) has two sets of paid personnel in each of the five unions of the Project Area. Family-welfare workers, all of them women, are paid by the Ministry's Family Welfare Division, whereas health workers, all of them men, are paid by the Ministry's Health Division. The Child Survival Project (CSP) complements both divisions with community mobilization and motivational activities, growth monitoring, nutritional education and training for traditional birth attendants (TBA).

Family Welfare workers, health workers, and CSP personnel unite every two months at the community satellite clinics. At these clinics, family welfare workers provide contraceptive services, give family planning education and distribute iron-folate pills to pregnant women. Health workers provide immunizations, vitamin A capsules, deworming medications, ORT packets and education concerning diarrheal diseases, water and sanitation. CSP personnel, having done much of the mobilization to get participants to the clinic, provide growth monitoring and growth promotion. Through growth monitoring, mothers of malnourished children are identified and invited to attend the nutrition education and rehabilitation program, called "hearth" in English and Shishu Kabar in Bangla.

CSP motivational activities aim to leave no child or mother out of the services. All Project-area residents are registered by name, age and address. The services they receive are noted by date in the register. Registers are carried by CSP's Community Health Workers (CHWs) during their bimonthly visits and updated from information on the child's or woman's health card. Informed by her updated register and the health cards, the CHW can provide the family with whatever information or motivation is appropriate at the time of the visit.

CHWs' registers are abstracted monthly by the Supervisors, who report the health indicators thus harvested to their Union Officer. Union Officers aggregate all reports from the supervisors and report to the CSP Coordinator. Displays of the aggregated reports can be viewed on the walls of

every Union office. Further sharing of this information, either with community leaders or between unions, is not often done.

Ministry staff and personnel at the Union level hold bimonthly meetings to which they invite CSS Union officers and supervisors. Information exchanges at those meetings are usually limited to confirmation of the satellite clinic schedule for the next two months.

CSP has held joint trainings with the MOHFW staff and personnel. The most recent of those trainings was for diagnosis and care of pneumonia. This training has resulted in the availability of appropriate care at the Health worker and health center levels, and has improved referrals from the CHW.

#### **b) Project activities after the end of the funding cycle:**

Attendance at satellite clinics is now an established community norm for parents with children aged 0 - 3 years. This is likely to continue, even if CHWs no longer provide intensive motivation as they did before. The MOHFW health workers and family welfare workers are more regular, punctual and effective at holding satellite clinics than they were before the Project, and have solved most logistic problems associated with the clinics. This should continue despite the closing of CSP.

Growth monitoring and Shishu Kabars have made significant advances but require weighing and charting. Currently, these activities are performed by CHWs and Shishu Kabar trainers. The 750 volunteer mothers, trained to operate Shishu Kabars, and the 3,600 mothers of malnourished children, who attended the Shishu Kabars, are competent to maintain their own children in adequate nutritional health. More children have been born, however, and their mothers may need the training afforded by the Shishu Kabars. The Shishu Kabars will need continued support until their lessons become more widely recognized as the child feeding norms of the Project area. CSS and WRC have secured limited continuing support to meet this need and are seeking more.

Finally, the CSS Micro enterprise program, which provides small loans to women, will enable many families to improve their economic and food security situation and thereby further sustain the health gains achieved by the population with help from the Project.

#### **c) Local partner's capacity to implement CS activities**

##### **The Population**

Supervisors served their purpose well while the CHWs were learning the discipline of their motto: "no child shall be left out." CHWs are beyond that phase now, and if any further supervision is required, it should be directed at engaging community members more fully in the process of sustaining and improving their health care. In effect, the 750 volunteer mothers that operated the Shishu Kabars and the 103 volunteer CHWs are a resource that continues to improve the capacity of 132,000 people to care for themselves.

##### **MOHFW**

The MOHFW has improved the regularity and effectiveness of the satellite clinics and efficiency of their logistics during the Project. The Deputy Civil Surgeon praised CSP generously for this accomplishment, thus crediting the Project with motivating both the MOHFW and the Population to achieve the currently high coverage rates that characterize the Project area.

## **CSS**

The Shishu Kabar's success in caring for childhood malnutrition inspired CSS's management to seek other partners to continue and extend it. This endeavor is promoting greater CSS investment in communication, networking, program planning and proposal preparation skills, as well as greater attention to efficiency of supervision than was the case at the beginning of the Project.

## **WRC**

The united effort to make a success of a difficult work has **created** stronger bonds than ever before between CSS and WRC. These bonds are represented very practically in WRC's agreement to support a portion of the budget for continuing CS activities.

### **d) Community Participation**

Communities helped choose the CHWs but did not, otherwise, participate actively in the design of the Project. In contrast, they played a key role in Project implementation, as benefits depended upon parents bringing their children to satellite clinics and being responsive to visits and education by the CHWs, TBAs, Shishu Kabar volunteers and evaluators. Community members participated in Project evaluation through focus groups and by responding to the evaluator's questions during home visits.

Community participants in the evaluation asserted that the Project was effective and expressed confidence in their ability to practice the behaviors learned during the Project. They were concerned, however, that the Shishu Kabars had not yet reached all the families that need them. Also, some male participants persisted in their demand for the construction of more hospitals.

The service population improved its capacity to meet its basic health needs through better health service utilization and better child care and feeding behaviors than those they practiced before the Project. The results are measured by comparison of baseline and end-of-project surveys (see accompanying KPC study). In addition, practice of better feeding behaviors after participation in a Shishu Kabar was measured by how much weight children gained after they participated in a Shishu Kabar.

Eighty-four percent of Shishu Kabar children had grown as fast or faster than the international standard for age at six weeks after daily supervision of the mothers' feeding practices ceased. Only 7% of children failed to maintain adequate weight gains. Nine percent of children did not attend their re-weighing session so their outcomes are **not** available for evaluation. No funds were available to support a more extended period of follow-up, but sustaining good rates of growth over a period of two months is good evidence of parents' participation in the nutritional rehabilitation of their children.

Shishu Kabars place the burden for rehabilitation upon the parents. Maternal feeding practices 'are supervised by trained volunteer mothers, supervising 3 - 5 mothers at a time, for approximately 2 hours per **day**, over a period of 12 days. The child is given only twelve meals during the Shishu Kabar; all other costs of rehabilitating children are borne by their families. Volunteer mothers who operated the Shishu Kabars expressed willingness to volunteer again.

### **e) Cost Recovery**

The Project includes a Micro enterprise and Development scheme that enables poor women to borrow small amounts of money and engage in income-generating activities. The loans must be repaid with 15% annual rate of interest. Revenue from the loans was expected to pay some of the salaries of CSP personnel when AID funding ceases. The actual revenue from these loans is not adequate for that purpose.

Much of the Project's cost is recovered in kind: labor of volunteer mothers, work CHWs and families put into mobilizing for the satellite clinics as well as the continued feeding, at home, of children whose nutritional rehabilitation was initiated in a Shishu Kabar. Cost recovery in this manner supports equity in service delivery, as services may be accessed freely by all and, in most cases, families became well-motivated to provide their labor and food to complete a process begun by the Project.

#### CAPACITY-BUILDING and SUSTAINABILITY **Plans and Outcomes**

TABLE 1

GOAL (from DIP)	END-OF-PROJECT OBJECTIVES	STEPS TAKEN TO DATE	OUTCOMES
Change in mothers' knowledge and practice	KPC survey at end of project improved over baseline	Baseline and final KPC completed	All indicators above baseline except exclusive breastfeeding rate
CSS capable to implement CS programs and attract other funding	Increases in CSS budget	CSPX implemented successfully. Several funding agencies contacted for help.	CSS now has \$80,000 assured for 1997-98 budget
Community demand for MOPHFW services will increase	Increased coverage rates of all preventive services	Coverage survey in final evaluation	Excellent coverage achieved for family planning, immunization and Vit A capsules
Community resources increased	CHW, TBA, SK & SK operators trained & maternal health committees functioning	Training for CHW, TBA and SK trainers completed and all working well under supervision	103 CHW, 103 TBA, 750 SK operators and 5 SK trainers active and successful
Cost recovery income from loan scheme to pay some costs of CS activities	Funds available to pay CS costs when AID funding stops	Loan scheme in operation and producing revenue	Revenue from loans supports part of costs of administering the loan program
Mothers able to provide better nutrition for their children	High percentage of mothers whose children were malnourished now receiving loans	Loan program established, but mothers of malnourished children not identified by program reporting system. Registry of mothers of malnourished children not cross-linked to registry of loanees.	Project unable to calculate proportion of mothers of malnourished children that received loans



## 5. PRESENTATION AND DISCUSSION OF FINAL SURVEY FINDINGS

### **CSP OBJECTIVES SUMMARY**

**TABLE 2**

	<b><u>Baseline</u></b>	<b><u>Final Survey</u></b>
1. Children 12-23 months old completely immunized	(841/129) 65%	(133/144) 92%
2. <b>TT</b> coverage	(144/1300) 48%	(264/1300) 88%
3. Women Breastfeed exclusively 0-3 months	(45/70) 64%	(16/26) 62%
4. Growth monitored bimonthly	(2/300) .7%	(275/1300) 92%
5. Health Sessions for those malnourished	0%	83%
6. Knowledge of calorie dense food	(2/300) .7%	(119/300) 40%
7. Vit A 6 months - 6 years (at least 2 doses)	(581/129) 45%	(133/144) 92%
8. Mothers with Vit A first month postpartum	(61/163) 2%	(202/300) 67%
9. Mothers with access to Vit A rich kitchen gardens	unknown	68%
10. ORT Use	(21/132) 66%	(15/15) 100%
11. Continued feeding during diarrhea	(5/128) 18%	(14/115) 93%
12. Knowledge of signs of dehydration	(84/1300) 28%	(259/1300) 86%
13. Recognize AR1	(27/177) 35%	(300/300) 100%
14. Pregnant women with ANC	(54/1300) 18%	(244/300) 81%
15. Eligible couples' contraceptive use	(89/282) 32%	(173/287) 60%
16. Women eat more during pregnancy and lactation	(43/300) 14%	(267/300) 89%

The project is associated with dramatic increases in the indicator values. Many of the increases are probably attributable to an effective community mobilization effort. Each household was visited bi-monthly by a CHW who motivated and trained mothers at the household level. Mothers' meetings were held monthly, providing health education and motivation to adopt preventive health behaviors. Mothers were invited to attend growth monitoring sessions, which were integrated with the satellite health posts which included immunizations and family planning services. The CS project staff methodically reached out to the community, encouraging them to participate in services and practice healthy behaviors at home. The fathers were trained and motivated through a traditional singing troupe which disseminated health messages through song.

The only indicator which slightly decreased was exclusive breastfeeding up until four months. The tradition of providing honey to a newborn from the first hour of life is still practiced. Culturally, it predicts how "sweet" the child's language will be, in a country of valued poets. It is also difficult logistically for mothers, who leave their infants with other caregivers while farming in the fields, to breastfeed upon demand. Thus, caregivers normally provide other foods to the infant until the mother returns from hours of work in the fields.

Other key Child Survival indicators which were measured, yet which are not part of the CS project objectives, also support an hypothesis of remarkable progress. TBA training may have impacted the initiation of breastfeeding, as the percentage of breastfeeding within the first hour increased from 16% to 35% and breastfeeding within the first 8 hours from 45% to 92%. Other noteworthy indicators are:

- Continuation of fluids during diarrhea increased from 32% to 87%; breastfeeding increased from 83% to 100%.
- Immunization drop-out rate halved, from 6% to 3%.
- Maternal card holders increased from 54% to 95%.
- TT knowledge of who it protects increased from 37% to 100%.

The percent of mothers who were able to identify the age at which children should be vaccinated against measles fell from 16% to 0%. This apparent failure springs from a misinterpretation of the question. Every person interviewed stated that measles should be given at the 10th month. This is consistent with the MOH's health message campaigns, the jari singers' lyrics and the message provided by CHWs. In Bangladesh, as in most countries, the tenth month of life is the month following the date on which the child is nine months old.

The numerators/denominators and percentages for each objective, with given values at the baseline and final KPC surveys, are presented in Tables below (Project Goals and Objectives). For a full discussion of the KPC survey findings, please see the **KPC** survey report, section IV.

Given the high rates of success shown by the KPC survey results, the evaluation team decided to take the time to check their reliability. The team's findings affirmed that the survey results are accurate. See Appendix III for KPC reliability analysis.

## PROJECT GOALS AND OBJECTIVES

Indicator objectives from the DIP	Indicator Values from the Baseline Survey	Indicator Values from the Final Survey
<b>Immunization</b> Children 12-23 months completely immunized by 12 months	Percent of children 12-23 months who have received all immunizations.  Numerator: (#34 all filled out) Denominator: (all 12-23 month olds)  $(84/129) \times 100 = 65\%$	Percent of children 12-23 months who have received all immunizations.  Numerator: (#34 all filled out) Denominator: (all 12-23 month olds)  $(133/144) \times 100 = 92.4\%$
Women 15-45 receiving at least 2 doses of tetanus toxoid (TT2)	Percent of mothers who received two doses of tetanus toxoid vaccine (card).  Numerator: (Response #2 to question #36) Denominator: (Total number of mothers interviewed)  $(144/300) \times 100 = 48\%$	Percent of mothers who received two doses of tetanus toxoid vaccine (card).  Numerator: (Response #2 to question #36) Denominator: (Total number of mothers interviewed)  $(264/300) \times 100 = 88\%$
<b>Nutrition</b> Mothers exclusively breastfeeding until 4 months	Percent of infants less than four months, who are being given only breast milk.  Numerator (For children 0,1,2, 3 months of age: number of mothers who responded "no" to all questions 6a, 6b, 6c, 6d, 6e, 6f, 6g, 6h, 6i)  Denominator (Total number of children aged 0,1,2, and 3 months)  $(45/70) \times 100 = 64\%$	Percent of infants less than four months, who are being given only breast milk.  Numerator (For children 0,1,2, 3 months of age: number of mothers who responded "no" to all questions 6a, 6b, 6c, 6d, 6e, 6f, 6g, 6h, 6i)  Denominator (Total number of children aged 0,1,2, and 3 months)  $(16/26) \times 100 = 61.5\%$

<b>Growth Monitoring</b> Children O-23 months Neighed bimonthly in Village 3MC sessions	Percent of 12-23 month olds who were weighed in growth monitoring session.  Numerator: (For children 12-23 months of age: number of mothers who responded "yes" to number 12.)  Denominator: (Total number of children 12-23 months of age.)  (2/129) x 100 = 0.7%	Percent of 12-23 month olds who were weighed in growth monitoring session.  Numerator: (For children 12-23 months of age: number of mothers who responded "yes" to number 12.)  Denominator: (Total number of children 12-23 months of age.)  (138/144) X 100 = 95.8%
Mothers of children O-23 months who attending hearth iutrition demonstration/rehabilitation sessions	Data not collected by KPC	Data not collected by KPC, see Final Evaluation Report for Health Information system data on Hearth beneficiaries.
(nowledge indicator: Mothers of children O-23 months who know to ntroduce calorie-dense foods	Percent of mothers of O-23 month olds who know to introduce calorie-dense foods.  Numerator: (For children O-23 months of age: number of mothers who responded "yes" to number 8b.)  Denominator: (Total number of children O-23 months of age.)  (2/300) x 100 = 0.7%	Percent of mothers of O-23 month olds who know to introduce calorie-dense foods.  Numerator: (For children O-23 months of age: number of mothers who responded "yes" to number 8b.)  Denominator: (Total number of children O-23 months of age.)  (11 9/300) X 100 = %39.6
<b>Vitamin A</b> Children 12-71 months eceiving 2 prophylactic loses of Vitamin A annually	Percent of children 12-23 months who have received at least 2 doses of vitamin A.  Numerator: (at least 2 spots on #13 filled out) Denominator: (all 12-23 month olds)  (58/129) X 100 = 45%	Percent of children 12-23 months who have received at least 2 doses of vitamin A.  Numerator: (at least 2 spots on #13 filled out) Denominator: (all 12-23 month olds)  (133/144) X 100 = 92.36%

Mothers receiving 200,000 IU vitamin A in the first month post-partum	<p>Percent of mothers who received vitamin A within one month postpartum.</p> <p>Numerator: (Response #2 to question #37) Denominator: (Total number of mothers interviewed)</p> <p><math>(6/300) \times 100 = 2\%</math></p>	<p>Percent of mothers who received vitamin A within one month postpartum.</p> <p>Numerator: (Response #1 to question #37) Denominator: (Total number of mothers interviewed)</p> <p><math>(202/300) \times 100 = 67.3\%</math></p>
Mothers who have access to Kitchen Gardens with vitamin A rich foods	Data not collected by KPC	Data not collected by KPC, health information system shows 68%
<b>Diarrhea1 Disease Control</b> Mothers of children 0-23 months who administer Oral Rehydration Therapy (ORT) for diarrhea	<p>Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were treated with ORT.</p> <p>Numerator: ( Number of mothers who answered #18 with any of the following responses: 2, 3, 4 or 5.) Denominator: (Number who answered yes to question #14)</p> <p><math>(21/32) \times 100 = 66\%</math></p>	<p>Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were treated with ORT.</p> <p>Numerator: ( Number of mothers who answered #18 with any of the following responses: 2, 3, 4 or 5.) Denominator: (Number who answered yes to question #14)</p> <p><math>(15/15) \times 100 = 100\%</math></p>
Mothers of children 0-23 months who continue feeding during diarrhea	<p>Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were given the same amount or more foods.</p> <p>Numerator: (Responses # 1 and #2 to question 17) Denominator (Number of "yes" responses to question 14 minus number of #5 responses to question 17)</p> <p><math>(5/28) \times 100 = 17.8\%</math></p>	<p>Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were given the same amount or more foods.</p> <p>Numerator: (Responses # 1 and #2 to question 17) Denominator (Number of "yes" responses to question 14 minus number of #5 responses to question 17)</p> <p><math>(14/15) \times 100 = 93.3\%</math></p>
Mothers of children 0-23 months who know at least one sign of dehydration	<p>Percent of mothers of children 0-23 months who know the signs of dehydration.</p> <p>Numerator: ( Responses #d to question #21) Denominator: (Total number of mothers interviewed)</p> <p><math>(84/300) \times 100 = 28\%</math></p>	<p>Percent of mothers of children 0-23 months who know the signs of dehydration.</p> <p>Numerator: ( Responses #d to question #21) Denominator: ( Total number of mothers interviewed)</p> <p><math>(259/300) \times 100 = 86.3\%</math></p>

<b>Pneumonia Case Management</b> Mothers of children 0-23 months who recognize pneumonia and receive appropriate treatment	Percent of mothers who sought medical treatment for infant/child (less than 24 months) with cough and rapid, difficult breathing in the past two weeks.  Numerator: (Number of mothers who responded to question #27 with any of the following responses: a, b, or c) Denominator: (Number of "yes" responses to question # 25)  $(27/77) \times 100 = 35\%$	Percent of mothers who sought medical treatment for infant/child (less than 24 months) with cough and rapid, difficult breathing in the past two weeks.  Numerator: (Number of mothers who responded to question #27 with any of the following responses: a, b, or c) Denominator: (Number of "yes" responses to question # 25)  $(17/18) \times 100 = 94.4\%$
<b>Maternal Care</b> Pregnant women consulting a trained provider for antenatal care in pregnancy	Percent of mothers who had at least one prenatal visit prior to the birth of the child.  Numerator: (Responses #1 to question #44) Denominator: (Total number of mothers interviewed)  $(54/300) \times 100 = 18\%$	Percent of mothers who had at least one pre-natal visit prior to the birth of the child.  Numerator: (Responses #1 to question #44) Denominator: (Total number of mothers interviewed)  $(244/300) \times 100 = 81.3\%$
Eligible couples using modern methods of contraception	Percent of mothers who desire no more children in the next two years, or are not sure, who are using a modern contraceptive method.  Numerator: (Responses #1 through #9 to question #41) Denominator: (Responses # 2 and #3 to question #39)  $(89/282) \times 100 = 32\%$	Percent of mothers who desire no more children in the next two years, or are not sure, who are using a modern contraceptive method.  Numerator: (Responses #1 through #9 to question #41) Denominator: (Responses # 2 and #3 to question #39)  $(173/287) \times 100 = 60.2\%$
Increase the number of pregnant women who eat more than usual during their latest pregnancy	Percent of pregnant women who eat more than usual during their latest pregnancy.  Numerator: (Response # 1 to question # 46) Denominator: (All women surveyed)  $(43/300) \times 100 = 14\%$	Percent of pregnant women who eat more than usual during their latest pregnancy.  Numerator: (Response # 1 to question # 46) Denominator: (All women surveyed)  $(267/300) \times 100 = 89\%$

Other Key USAID Child Survival Indicators not included in Project Objectives but information collected in KPC baseline and/or final surveys reported here for USAID.

Other Key Child Survival Indicators	Baseline	Final
<b>1. Initiation of Breastfeeding.</b> 1a. Percent of children (less than 24 months) who were breastfed within the first hour after birth.  Numerator (Response #1 to question 5) Denominator (Total number of mothers interviewed)	Baseline: (48/300) X 100 = 16.3%	Final: (104/300) X 100 = 34.6%
1b. Percent of children (less than 24 months) who were breastfed within the first 8 hours after birth.  Numerator (Response #1 and #2 to question 5) Denominator (Total number of mothers interviewed)	Baseline: (134/300) X 100 = 45.4%	Final: (276/300) X 100 = 92%
<b>3. Introduction of foods</b> Percent of infants between 6 and 10 months who are being given solid or semi-solid foods.  Numerator (Number of mothers who responded "yes" to at least one of questions 6c, 6d, 6e, 6f, 6g, 6h, 6i) Denominator (Total number of infants 6, 7, 8, and 9 months of age.)	Not reported	Final: (78/78) X 100 = 100%
<b>4. Persistence of Breastfeeding</b> Percent of children between 20 and 24 months, who are still breastfeeding (and being given solid and semi-solid foods).  Numerator (For children 20, 21, 22, and 23 months of age, who responded "yes" to questions 3) Denominator (Total number of children 20, 21, 22 and 23 months of age).	Baseline: (25/30) X 100 = 83.3%	Final: (37/37) X 100 = 100%
<b>5. Continued Breastfeeding during Diarrhea.</b> Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were given the same amount or more breast milk.  Numerator: (Responses #1 and #2 to question 15) Denominator: (Number of "yes" responses to question 14 minus number of #5 responses to question 15)	Baseline: (24/32) X 100 = 75%	Final: (13/15) X 100 = 86.6%
<b>6. Continued Fluids during Diarrhea.</b> Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were given the same amount or more fluids other than breast-milk.  Numerator: (Responses # 1 and #2 to question 16) Denominator (Number of "yes" responses to question 14 minus number of #5 responses to question 16)	Baseline: (8/25) X 100 = 32%	Final: (13/15) X 100 = 86.6%

<b>10. Immunization Coverage (Card): EPI Access</b> Percent of children 12-23 months who received DPT 1.  Numerator: (Question # 34: DPT 1 recorded) Denominator: (Total number of children aged 12-23 months)	Baseline: $(104/129) \times 100 = 81\%$	Final: $(143/144) \times 100 = 99.3\%$
<b>11. Immunization Coverage (Card): EPI Coverage.</b> Percent of Children 12-23 months who received OPV3.  Numerator: (Question # 34: OPV 3 recorded) Denominator: (Total number of children aged 12-23 months)	Baseline: $(98/129) \times 100 = 76\%$	Final: $(140/144) \times 100 = 97.2\%$
<b>12. Immunization Coverage (Card): Measles Coverage</b> Percent of Children 12 to 23 months who received measles.  Numerator: (Question # 34: measles vaccine recorded) Denominator: (Total number of children aged 12-23 months)	Baseline: $(84/129) \times 100 = 65\%$	Final: $(133/144) \times 100 = 92.4\%$
<b>13. Immunization Coverage (Card): Drop Out Rate</b>  Numerator: (Number of children who have received DPT 1 minus the number of children who received DPT3) Denominator: (Number of children 12-23 months who have received DPT1)	Baseline: $(104-98)/104 \times 100 = 5.8\%$	Final: $(143-140)/143 \times 100 = 2.1\%$
<b>14. Maternal Card</b> Percent of mothers with a maternal card.  Numerator: (Responses "yes" to question #35) Denominator: (Total number of mothers in the survey)	Baseline: $(163/300) \times 100 = 54.3\%$	Final: $(284/300) \times 100 = 94.6\%$
<b>USAID Knowledge Indicators</b>  <b>2. Immunization Knowledge: Timeliness of Measles.</b> Percent of mothers who know that measles vaccine should be given at nine months.  Numerator: (Response "9 months", to question # 30) Denominator: (Total number of mothers interviewed)	Baseline: $(71/300) \times 100 = 24\%$	Final: $(0/300) \times 100 = 0\%$
<b>3. Immunization Knowledge: Tetanus Toxoid protection.</b> Percent of mothers who know that tetanus toxoid protects both the child and the mother.  Numerator: (Response #1 to question # 31) Denominator: Total number of mothers interviewed	Baseline: $(112/300) \times 100 = 37.3\%$	Final: $(300/300) \times 100 = 100\%$  ..



## Discussion as to what the project achievements may be attributed:

1. Immunization of under one-year-olds: National announcements on TV and radio for immunization days, CHWs provided motivation at the family level, CHWs registered 100% of families and gave education concerning immunizations during home visits and mothers' meetings.
2. TT: The key to higher coverage was the provision of maternal cards. The government was unable to provide cards, so the project printed and distributed to all women 15-49 years. **TBAs** and CHWs motivated women to get immunized.
3. Exclusive breastfeeding O-4 months: This behavior did not change significantly. The **n=16** is small and confused by the question on the KPC. The government now advocates exclusive breastfeeding up to 5 months.
4. Growth Monitoring Bimonthly: CSP introduced GMC and intensive motivation by **CHWs**. All under-twos were registered and followed. Coordinator ordered a list of all no-shows and they were fetched to attend weighing sessions.
5. Shishu Kabar: Targeted 700 mothers to become Shishu Kabar trainers **and** trained 750. Each mother was expected to train 4 mothers but exceeded the target (2,800) and trained 3,675 mothers of malnourished children, who prepared and fed their children over 44,000 demonstration meals.
6. Knowledge of calorie dense foods: Training mothers during home visits, during mothers' meetings and communication campaigns to add extra foods, including coconut, oil, molasses, peanuts and milk products to children's food.
7. Vit A: Government holds 2 days annually for Vitamin A capsule distribution. **CHWs and Supervisors** made lists and brought children to assembly posts. On-going health message dissemination through home visits and mothers' meetings.
8. Vit A post-partum: Starting in June '97, CSS received permission to give Vit A to TBAs for distribution to mothers during the post-partum period. Previously vitamin A capsules were restricted to those newlydelivered mothers who attended EPI posts.
9. Vit A-rich Gardens: 68% of households have pumpkin, papayas, etc. growing around their houses. Community motivation and seed distribution.
10. ORT: CHW training, national campaign: radio and TV, pregnant women trained by Nurse Midwife and **TBAs, Jari** singers. Paikgacha Hospital reported 0 diarrheal deaths in last 2 years compared to at least one per month in previous years.
11. Feeding during diarrhea: same as above
12. Signs of Dehydration knowledge: Health Assistants also trained mothers during satellite clinics, and the CHWs and TBAs reinforced these messages.
13. Recognition of ARI: CHWs and RNs supervised closely, radio and TV, MOH Health Assistants that could describe ARI and the indications for treatment were permitted to distribute antibiotics to patients at the household level.

14. Pregnant Women seeking ANC: 103 trained TBAs motivated women, RNs went door-to-door rather than provide check-ups at satellite clinics (FW Visitors and Assistants).

15. Contraceptive Use: Group meetings with FWAs and FWVs in August 1996, home visits by CHWs to motivate and aid Family Planning workers in their task. Participation of FWAs and FWVs in the bimonthly satellite clinics.

16. Pregnant and lactating women increase feeding: Trained TBAs encouraged increase of food, as did CHW during home visits and mother's meetings. Father do all purchasing of food and they learned, through the JAR1 singers, to buy food when their wife is pregnant.

## **6. ISSUES IDENTIFIED BY EVALUATION TEAM**

### **1. Female Supervisors: Women Leading Women**

All supervisors, except for one recently promoted female, are males. All village level workers are females. Five officers and 15 supervisors (20 males) supervising 100 CHWs(females). The male supervisors have never worked as a CHW so the actual experience of the supervisee is not known to the supervisor. Those CHWs who excel and display leadership qualities would be excellent supervisors themselves as they know the CHW tasks intimately and are best able to understand the problems encountered.

It is a motivational incentive to know that good work will be rewarded with higher responsibility and acknowledgment. CHWs who are hard workers could see the fruits of their labor through a better position, providing them with an opportunity of upward mobility. Many of the CHWs are semi-literate, but those that are literate and have emerged as natural leaders should be tapped. Those "organic" leaders who have proven innate qualities could supervise their corps, Someone who has actually performed a job is able to understand what is required through their direct experience.

The program mainly works with women, but is heavily supervised by men. This gender bias should be addressed.

### **2. Arsenic Water Contamination:**

In the recent year, it has been found that in certain areas of Bangladesh, deep tubewell water has been contaminated with arsenic metals. The problem is being studied and although the government had been promoting the use of deep tubewells, the situation now calls for the boiling of pond water for drinking. This is the direct opposite message which has been promoted the last few years. Dakop and Paikgacha Unions have an inordinate amount of contamination, with over 80% of wells containing significant amounts of arsenic. This will negatively impact the tremendous strides made in public health through this project.

### **3. Job Security**

Given the high unemployment rate in rural Bangladesh, NGOs naturally have difficulty in laying off staff. Since the implications of the recommended staff re-structuring would entail displacing male supervisors, another problem would be created. It is best to have people do what they do best and the male supervisors have exhibited great skill in setting up systems to mobilize communities. Now their roles are ready to be phased over to CHWs themselves as they have effectively worked themselves out of a job. Rather than lose their wealth of experience, transferring them to new areas may be a feasible option.

### **4. Family Planning and Health Worker Gap**

The ongoing national effort to integrate family planning and health is an excellent opportunity to encourage CHWs and FWVs to integrate their tasks. With 44,000 eligible couples of which 73% contraceptive, it seems that

the project facilitated the FWAs' work. CHWs are not duplicating but complementing the FWAs' work. Not only could the CHW follow pregnancies and use complete lists of target groups, they could promote family planning.

At the thana level there are 9 FWVs paid by govt. (\$100 mos), 50 FWAs (\$1.5 mos). Unfortunately, not all the FWAs are active and they are sparsely distributed. If the trained CHWs were added to the workforce of the FWA, their workload could become reasonable and more effective. For example, in one union, there are only 4 FWAs. If 16 CHWs were added, it reduces to one-fourth the number of families that must be reached by FWAs and CHWs.

## 7. INNOVATIONS AND LESSONS

There are two innovations implemented by this project which have proven success in contributing to the adoption of preventive health behaviors.

1. **Jari Singers:** traditional entertainment provided by itinerant musicians
2. Shishu Kabar: "Hearth" nutrition education and rehabilitation program

### 1. JARI SINGERS:

Traditionally rural Bangladeshi's main entertainment is provided by live, wandering minstrels who travel village to village. This project tapped in to this existing network of musicians with large audiences to impart health messages. The singers are given the lyrics from the project staff which are messages directly related to the project objectives. The musicians set these lyrics to traditional music which the people are familiar with and enjoy.

The amount of enthusiasm and sincerity with which the messages are disseminated is extraordinary. The conviction used by the singers is enough to convince mothers and fathers that if their child is not immunized they are very poor indeed. They were especially instrumental in involving fathers in learning about protective health behavior. During focus groups with men, all mentioned that they learned about Child Survival through the **Jari Singers**. Since men sell and buy foods at the markets, it is important that they are aware of the nutrition. The nutritional messages sung by the **Jari** help to support the mothers who must depend upon their husbands to select the foods that are purchased and brought home.

Upon interviewing the **Jari Singing Group** (5), they felt that they were contributing to society and it added meaning to their music to be able to affect the health and welfare of women and children. National television is also hosting **Jari Singers** that sing health messages to the population. It is an effective communication strategy to reach a large audience who are naturally interested in the media.

### 2. The HEARTH or Shishu Kahar Program: NUTRITION EDUCATION AND REHABILITATION program in rural Bangladesh

#### I. Introduction

Where killing, crippling, or deficiency-producing diseases are prevented or controlled by child survival activities, many young children who never experience such diseases gain weight at adequate rates despite sharing the severe poverty experienced by stunted and wasted children of the same neighborhood. This observation suggests that some families practice child care and feeding behaviors better adapted than others to their context of poverty. Better use of that knowledge is happening through the HEARTH or Shishu Kabar (SK) program in the Child Survival Program (CSP) of the Christian Service Society in the Khulna region of rural Bangladesh.

The Shishu Kabar HEARTH concept builds on two community health experiences:

[1] use of knowledge and wisdom of poor mothers of d-nourished children (called positive deviant mothers by Zeitlin (1990) and [2] the use of domiciliary or village level interventions to rehabilitate malnourished children while training their mothers in nutrition. All activities took place in the context of CSS child survival activities, including growth monitoring/counseling (GMC) and distribution of Vitamin A supplements.

New initiatives using this concept have been called nutrition demonstration foyers in Haiti by the Hospital Albert Schweitzer; and nutrition rehabilitation/education program or NERP in Vietnam by Save the Children/USA. Based on these models, CSS partnered with World Relief Inc., of Wheaton, IL, to develop a modification suitable to rural Bangladesh mothers in the Khulna area of Bangladesh. It was implemented in the context of the USAID centrally funded child survival program carried out by CSS in Paikgacha and Koyra thanas near Khulna. Preliminary results were presented in a technical advisory group meeting (TAG) held in Wheaton, IL, in 1996 and published by the BASICS program with support from USAID (Wollinka, et al, 1997).

## **II. Definition and strategy of the HEARTH program**

The HEARTH or Shishu Kabar is a nutrition rehabilitation/education program at the neighborhood level, designed to assist parents to rehabilitate malnourished children while being trained in nutrition and child survival.

The model calls for recruiting and educating volunteer mothers in nutrition and then temporarily supporting them to offer training and an extra meal and snack from their own hearths to begin rehabilitating malnourished children in their own neighborhoods. The volunteer (or Shishu Kabar, SK) mother must invite the mothers of malnourished children to work with her daily for two weeks, each day preparing a nutritious extra meal and snack, and feeding the malnourished child after which the mother goes home and is expected to offer her child the usual family fare--not denying the child his or her part from the family cooking pot.

After two weeks (twelve days) the family of the malnourished child is expected to continue the rehabilitation process on their own. CSS trainer/supervisors (women from the area) support the volunteer to purchase foods on the local market so that the SK volunteer can provide a balanced diet at the lowest cost possible. The menu and child feeding practices are drawn from a supervised exercise for SK volunteers. wherein they first visit homes of well-nourished children, interview mothers to determine their positive deviant feeding practices, and from that experience develop a balanced menu under the supervision of eighth-grade level nutrition aides.

During their training, the SK mothers are also supposed to visit the local market under supervision in order to prove that they can buy the menu at low cost in their own community. They must demonstrate that they can offer each child a balanced diet containing an extra 900 calories a day with 27 grams of protein. The malnourished child is monitored by regular monthly weighings and is referred to a health center for treatment of illnesses, especially in the case where he/she does not gain weight as fast or faster than the international standard median rate. At least one trainer-supervisor, usually a young woman with eighth grade level education, is necessary to train mothers and conduct three or four HEARTHS going on simultaneously in several neighborhoods. She can then rotate her activities to new neighborhoods, gradually covering a defined geographic area.

## **III. Background**

Village level treatment of malnutrition with nutrition education for mothers is not new, but it is still needed. WHO reported on the distribution of causes of death among the 12.2 million under-5s who died in 1993, showing that 54% had malnutrition as a contributing cause. In an attempt to solve the problem during the 1960's, Pan American Health Organization (PAHO), following the recommendations of Bengoa in WHO, supported village level nutrition rehabilitation/education centers to teach nutrition to mothers through the rehabilitation of their own children using local foods. The centers treated the child outside the hospital, thus reducing the danger of cross infection, were less expensive than hospitalization, and involved the mother in food preparation while discussing the value of the nutrients.

Mothers and caretakers could focus on the change in the child brought about by better feeding practices. King, Fougere and others showed that this demonstration was far more convincing than mere messages (Berggren showed that mothers educated in this way were better able than their uneducated neighbors to prevent death in younger siblings of malnourished children). In nutrition demonstration education programs, mothers observed their own children and saw the importance of food and/or more frequent feedings. <sup>1</sup>

Zeitlin and others pointed out that positive deviant mothers in most villages already had coping mechanisms that enabled them to prevent malnutrition. Later, Berggrens incorporated this concept: they developed a training exercise for village volunteers to visit such mothers and capture knowledge about their feeding practices that could then be passed on in a demonstration-education mode. Instead of using costly nutrition center (as above), volunteer mothers offered their own kitchens or HEARTHS to do it.

#### IV. The Context and Organization the Shishu Kahar or HEARTH program

Hearths do not succeed as an isolated intervention. Whatever good feeding practices can achieve for children's health, infectious diseases or closely spaced births can quickly destroy. Success is most likely when Hearths are integrated with child survival activities that include immunization, Vitamin A and iron supplementation, diarrheal disease management, family planning, antenatal care, growth monitoring/counseling and access to appropriate care for pneumonia, malaria, and tuberculosis. HEARTH staff and personnel can be oriented to child survival activities so that their actions complement those of child survival.

##### A. HEARTH Staffing pattern (illustrative only):

The following service and staffing pattern emerged in the CSS program, which serves a total population of 129,950 people in a rural area in Khulna District. The project serves five very poor contiguous unions: Godaipur, **Rurali**, Haridhali, Kapilmani, and Amadi. After mapping and house numbering, a door-to-door census was carried out from which rosters of the target group of children were derived. One hundred and three community health workers (local volunteer women, or **CHWs**) make home visits to educate mothers about child survival interventions and to invite them to bring their under-twos to bimonthly growth monitoring/counseling sessions held in the villages, often in unison with government immunization sessions. CHWs keep a special growth monitoring roster so that all malnourished children can be identified (those suffering 2nd or 3rd degree malnutrition by Gomez standards, using the standards of the Bangladesh Ministry of Health growth monitoring norms).

vi — enrolled children aged 6 - 23 months	4,460
-- malnourished children aged 6 - 23 months (est)	3,360
-- mothers of malnourished children	3,000
— volunteer mothers	750
-- SK trainers of volunteer mothers	5
-- coordinator/trainer (part time)	1

##### Definitions/comments:

1. Enrolled children are those 6 - 23 months of age who reside in the service area **and** have been registered by door-to-door census, have growth monitoring/immunization cards, and are being followed by the CHW who records their weights in her roster.
2. Malnourished children are a subset of the enrolled children who are 6-23 months of age and who weigh less than 80% of the international standard median. They and their mothers will be recruited to join a HEARTH. They are expected to have been dewormed and to have had any serious illnesses treated before joining the HEARTH.
3. Mothers of malnourished children are those who will be invited to bring their malnourished child or children to a daily HEARTH for 12 days (a two week period with Fridays off). They are asked to continue to feed their

children at home the same way they would normally, so that the meal and snacks at the HEARTH are true supplements. At the end of the 12 days, mothers are told to continue the HEARTH menu in their own home for the next two months, to bring their child to special follow-up weighings, and to seek care for any illness. They are asked to re-integrate their child into the ongoing child survival/growth monitoring activities.

4. Volunteer mothers are residents of the service area or village who volunteer for HEARTH **training** and for operating a HEARTH in their own kitchen or Shishu Kabar. Volunteers are chosen from among willing mothers by consensus of their 15-20 neighboring families. This consensus is facilitated by the local CHW and her supervisor/trainer.

#### **Training Strategy:**

1. Volunteers are trained by eighth grade level nutrition aides (SK trainers) to do a simple dietary recall study after home visits to families with well nourished children, to make menus, to purchase appropriate foods, to assess quantities, prices, and nutritional values of certain foods, to rehearse HEARTH activities, to weigh children and interpret a growth chart, and to explain the HEARTH's purpose and operations to their neighbors.

Immediately after their training, volunteers operate HEARTHS in their own homes for all the mothers of malnourished children in their neighborhood of 15-20 families. In Bangladesh this usually turned out to be 4 to 8 children. They are expected to remain a community resource to combat malnutrition,

2. Trainers of the volunteers are literate women, trained during two months in basic nutrition, adult education, and child survival/HEARTH strategy. Their skills must include the method of utilizing simplified diet recalls reported by illiterate mothers. They must understand how to calculate the amounts of local food needed to provide 800-1000 calories and 27 grams of protein, with appropriate vitamin content. Immediately following their training they are supervised to train groups of volunteer mothers, distribute money to them as needed for food purchases, assure that children are deparasitized, weighed and referred to a physician if necessary. They report their activities to their supervisor during regular meetings as well as in writing. Their reports identify children, mothers, and volunteers by name, address, dates contacted, and thereby constitute a permanent record for each HEARTH. They are expected to keep track of participation and outcome for each child.

Training sites are located within 15 minutes of the homes of the particular group of volunteers being trained.

Trainers must therefore be prepared to and supported to live near each successive training site during training and supervision activities. Trainers usually work in pairs to train and supervise groups of 8 to 20 volunteer mothers.

When local development workers accomplish the recruitment of each group of volunteer mothers, they can assemble them so that training can begin immediately. Trainers working in pairs can usually train two groups of volunteers per month.

#### **VI. Preliminary Results and findings from the Shishu Kabar project:**

The project was applied to 3,640 children and their mothers who were the trainees of 750 Shishu Kabar volunteer mothers. World Relief provided technical support to this program of the Christian Service Society located in Khulna. Lisa Filoramo, a public health nutrition specialist, became the trainer of trainers for the project. She initiated the Shishu Kabar program by introducing not only the training curriculum and training several counterparts known as SK trainers, but also an information system that permits at least preliminary tabulation. This information system interdigitates with the project's overall system developed by World Relief and CSS.

One pilot test and three SK rotations were completed between July and October 1995, serving 482 children. Initial results showed that 85% of the participants had catch-up or adequate growth after the SK session. The figure went up to 90% at the two month weighing, showing that mothers seemed to have continued offering extra calories to their children.

The final evaluation had similar findings as the following table shows. From the SK trainers' records on weighings from each session, and on one month and two month follow-up weighings, it was possible to determine from the last-but-one Shishu Kabar sessions from the past 18 months. Even in this Moslem society, mothers normally shy and hesitant to go outside their own homes were willing to become volunteers to rehabilitate neighboring children. Focus groups revealed that the program enhanced the understanding of the community about why children need regular weighing as a part of growth monitoring/counseling. In community level focus groups before the project began, Bangladeshi fathers who were trained in community health spoke up that males should not be fed first and foremost; our wives should recognize that we are concerned about our children! Final evaluation showed findings similar to Filoramo's. During the first two months after a HEARTH experience, 80% of children experienced catch-up or adequate growth. This despite the fact that it was often difficult for mothers to access adequate referral services for ill children.

#### **A. Results from Focus Group Discussions:**

The evaluation team convened focus groups of mothers from all five unions, and also groups of Shishu Kabar mothers. Fathers groups were also convened and interviewed through an interpreter.

A common observation in all five unions where Shishu Kabars have been tried is their propensity to help the community; the father and the mother focus on the child. While the emphasis here is on the demonstration of child feeding practices, it must be remembered that it is also true that in this project there were ill children who had been referred for curative care because the family was encouraged by the volunteer trainer-mother to seek medical intervention before the Shishu Kabar. Feeding such children during the recovery period, when children are often anorectic, is an important demonstration, but these children were not identified so that the effect could be separated out.

Mothers in all focus groups knew that extra oil should be added to the diet of the weaning child. Mothers could give recipes for kitchuri and universally espoused the need for an extra meal and extra snacks in the focus groups. They also knew iron-rich foods and Vitamin A rich foods.

#### **Discussion :**

The HEARTH approach in Vietnam, known as the NERP under Save the Children/USA has been so successful that it had a communitywide effect and is being replicated in that country by various organizations with government encouragement, and now covers a population of about one million. In the CSS project in Paikgacha and Amadi, it is too soon to look for a community-wide effect since some HEARTH completions are so recent that children have been weighed only once after the HEARTH. Focus groups convened in each of the five unions covered revealed that parents were involved in understanding how to detect and define malnutrition; many learned how much malnutrition existed in their union. But in Vietnam, commune leaders learned how to make pie diagrams showing the proportion of children in moderate or severe malnutrition, and to give this feedback to the community. They focused on making that piece of the pie that represented severe malnutrition disappear, and they realized that every child counted. No such feedback mechanism has yet been developed for the CSS project.

For example, in Vietnam among 7,554 under threes weighed before NERP interventions, 29% suffered severe or moderately severe malnutrition. Two years later, at the last growth monitoring/promotion sessions in these same villages, only 2% fell into this category. A cohort study of the NERP children revealed that the effect was sustained two years after the intervention. Overall weight-for-age of 1,893 under-threes improved 0.36 Z-scores (from -2.14 to -1.78,  $p<0.001$ ) without sex difference (Stemin, Stemin and Marsh, 1997). The Hanoi National Institute of Nutrition also did an independent survey two years after the program started that permitted the comparison of intervened vs. non-intervened communes finding that the decrease in malnutrition had been sustained: intervened villages had significantly fewer cases of malnutrition. The project also was able to estimate that at least 12 deaths were averted in the first four intervened communes (pop. 26,057).

There are currently no funds available to do studies like the above on the SK program, and these would be highly desirable. A description of modifications and justification for these in the Bangladesh model, such as limiting the target to children 6 - 23 months of age, appears in chapter 6 of a recent publication (Wollinka et al, 1997). CSS also enrolled many SK mothers in poverty-lending programs but did not allow the community to re-enroll children in an SK exercise, as had happened in Vietnam. Save the Children/USA had the capacity to respond to this request, provided commune workers continued their contribution in human resources. Patient preparation of community leaders paid off in Vietnam.

In Haiti, the HEARTH or foyer project in the district of the Hospital Albert Schweitzer (HAS) (pop. 224,000) reduced moderate malnutrition more than severe malnutrition, but community-wide data analyses were hampered by the extreme mobility of the children in the follow-up period. The project occurred during the recent period of economic disruption in Haiti, took children up to the age of six, and had to cope with the fact that mothers often came home from urban areas to their natal village to drop off a malnourished child with extended family members.

Nearly 9,000 children were rehabilitated in HEARTHS at a fraction of the cost of hospitalization (\$7. per participant compared to at least \$240. at a curative center). A retrospective impact evaluation using longitudinal **wt/age** data showed that the main effect was to prevent deterioration in the nutrition status of moderately underweight children when compared to a group without HEARTH; the finding was significant (**p<.01**). The amounts of weight gain were substantially better in the intervened children, although all had benefited equally from growth monitoring/counseling (Burkhalter and Northrup, 1997). Since most malnutrition-related deaths occur in children who are mildly and moderately underweight (Pelletier, 1995). this HEARTH finding is important.

#### **Research Needed:**

Long-term follow-up of the SK children would be highly desirable, as well as the cohort type of study carried out in Vietnam.

For more information on Where and How have HEARTHS been tried?

HEARTHS are ongoing in the Save the Children/USA project in Vietnam in the Thanh **Hoa** province outside Hanoi. The program is now reaching 500,000 people and has been recognized as an appropriate strategy by the government. Contact: Save the Children/USA, Att: Dr. David Marsh, Westport, CT 06604.

<sup>t</sup> The HEARTH program known as FOYERS in Haiti has also received national recognition. The project has been dropped for the moment by the Albert Schweitzer Hospital, but is being carried on in the Save the Children/USA project near Maissade under the direction of Dr. Saintelie Dubuisson. They found significant change in intervened villages two years after the program started.

The HEARTH or Shishu Kabar program, under the direction of World Relief, was carried out under a child survival program of the Christian Service Society of Khulna (for detailed information the reference is: Lisa Filoramo, MPH, 1029 S. Evergreen., Apt. 2N, Arlington Heights, IL 60005).

## **8. ACHIEVEMENTS AND CONSTRAINTS**

The project was highly successful in achieving its objectives. High coverage was achieved in EPI, Growth Monitoring, and Family Planning. Especially noteworthy is the success of the nutrition follow-up training provided through Shishu Kabar. It is extraordinary to have rehabilitated 83% of 2nd and 3rd degree children. Growth promotion was not left out of GMP, but rather prioritized as **the** main purpose of weighing children. Behavioral change occurred at the family level through the indirect indicators of project.



**a. Factors which contributed most towards these achievements are:**

1. Staff is strong and well-trained. All CHWs and TBAs and SK trainers are from the community and actively training mothers at the household level. They are conducting extensive and thorough community outreach, disseminating health messages, collecting quantitative data to measure effectiveness, and motivating mothers to adopt new protective behaviors.
2. Field work is well-managed and consistently followed up. Supervision is strong.
3. There is a proven ability to work with government officers, as attested by the Asst. Civil Surgeon and other various officers interviewed.
4. There is a long track record of CSS work in area, which has created a fund of goodwill in Khulna District.
5. The training process was well-conducted. It was a skill-by-skill, on-the-job approach which provided training over time.
6. The introduction of mothers' cards to track TT into the community raised coverage.
7. Supporting the integration of services during Family Welfare satellite clinics aided the family planning workers, since the project tried to schedule EPI sessions at the same time.
8. The Jari singers provided an innovative health education avenue and proved to be an important media to reach men and support health messages among families.

**b. Factors which impeded the achievement of success are:**

1. The remoteness of the project area with high illiteracy rates and older/illiterate TBAs.
2. The lack of a consistent CSP Director. There were three different doctors and the position was vacant during the last months of the grant period.
  - a. Dr. Rahman: Start of project till MTE
  - b. Dr. Sabbir: MTE till Sept. 96
  - c. Dr. Sonjay: Sept. 96-Aug. 97
3. There is a high turnover of SK trainers. Three of the five SK trainers married and moved away to their husband's village.
4. The three-year grant period is short.

**c. Interventions that were difficult to implement:**

1. Exclusive breastfeeding is difficult to adopt, as women working in the fields leave their infants at home with caregiver for long periods of time.
2. Contraceptive distribution relies on the government and is often inconsistent. The project brought the FW workers to the satellite clinic sessions to facilitate their distribution of contraceptives.
3. Iron folate was not distributed as a supply, and it was unclear whether or not CSS personnel could have distributed the tablets had they been available. The CHWs promoted iron rich foods instead, as the FW workers who were supposed to distribute tablets did not distribute them.
4. TBA kits were provided, but not pre-sterilized. Although TBAs were taught to sterilize the blade and clamps before use, it is not as reliable as pre-sterilized kits. These kits are available in Khulna.
5. There is a lack of appropriate referral for emergency obstetric cases, since C-section capability, transfusions and transportation are available only in Khulna, which may be up to eight hours away. Women with difficult deliveries often die. CSS will continue to work closely with the MOH to provide C-section capability in their new hospital using the WHO minimum basic standards.
6. There were no maternal health cards available and low TT coverage. The project paid to have the cards printed, distributed them, and TT coverage went up.

**d. Weaknesses of the project**

1. Lack of community feedback to either CHWs or community members. Although the data was available, there was little presentation back to the community.
2. There was a communication barrier with community leaders, leading to their low involvement. This led to a lack of community ownership. Communities need to play an important role in the supervision of their

services. The project's involvement of community leaders in leading and supervising their own services is still minimal.

3. Community leadership and capacity building was not developed. The project staff was strong and worked well in getting the job done, but did not transfer their leadership skills.
4. The staffing structure was top-heavy and male dominated. Although this worked well in mobilizing a large population, the phase-over to empowering CHWs did not take place.
5. TBA training was not completed. There remain untrained TBAs making deliveries. Through pregnancy and birth reporting system the TBAs can be identified and referred for training.

Overall, the project was successful at accomplishing its objectives and surpassing targets. The strengths of the project far outweighed its weaknesses. Most of the constraining factors were overcome with specific actions in order to achieve the project results. The project accomplished more than what it set out to within three years. It is a reflection of the dedication of the staff and the willingness of the community to work towards improving Child Survival.

**EVALUATION ROLES**

<b>Team Leader</b>	Donna Sillan (CV included in Appendix V)	'1
<b>Authors</b>	Donna Sillan. evaluator Dr. Warren Berggren, evaluatdi Dr. Gretchen Berggren, evaluator	
<b>Editors</b>	Olga Wollinka, CS Grants Manager Muriel Elmer, CS Training Specialist Mark Munshi , CSS Director	

## **APPENDIX I**

Final Evaluation Team Members

## **Bangladesh CSP Final Evaluation Sept. 8-17, 1997**

### **Purpose of Evaluation:**

1. assess achievement of objectives and acknowledge achievements
2. explore reasons for not meeting objectives
3. assess improvements in partners to plan and implement
4. examine sustainability
5. make recommendations
6. explore issues raised by staff
7. recommend next phase
8. assess KAP of health providers
9. lessons learned

### **Team:**

- |                               |  |
|-------------------------------|--|
| 1. Dr. Warren Berggren        | PVO Headquarters, World Relief                         |
| 2. Dr. Gretchen Berggren      | PVO Headquarters, World Relief                         |
| 3. Mr. Mark Munshi            | PVO country officer rep: CSS Director                  |
| 4. Donna Sillan               | External evaluator, team leader                        |
| 5. Mr. Dulal                  | NGO partner, CSS project staff, Health Educator        |
| 6. Mr. Faruk                  | NGO partner, CSS project staff, CSP Coordinator        |
| 7. Mr. Sabbir Ahmed           | Government health representative, Medical Officer      |
| 8. Moshammud Maliamuda Akhtun | Community representative (maternal health trainer, RN) |

### **Final Evaluation Structure**

- |   |                      |
|---|----------------------|
| 1. Summary and Recommendations          | (team)               |
| 2. Project Background                   | (DS)                 |
| 3. Recommendations of MTE               | (DS)                 |
| 4. Capacity Building and Sustainability | (WB)                 |
| 5. Final Survey Findings                | (GB)                 |
| 6. Other Issues                         | (team/project staff) |
| 7. Innovations and Lessons              | (GB)                 |
| 8. Achievements and Constraints         | (WB)                 |

### **Project Areas:**

#### Paikgacha Thana

1. Kapilmuni
2. Haridhali
3. Rurali
4. Godaipur

#### Kovra Thana

5. Amadi

## **APPENDIX II**

### Evaluation Process

## PROCESS: Field Visits per union

### A. Focus Group Discussions (FGD) 6-8 persons for 1/2- 1 hour

1. Mothers of under-5 children (ask to bring mothers cards and GM cards)
2. CHWs (4-5) and TBA's (2-3)
3. HEARTH trainers (1-2) and Hearth Volunteers (4-5)
4. Community Leaders /fathers

### B. Random Home Visits

3 per union (at least)

### C. Key Informant Interviews

#### **Project staff:**

1. Union officers (1) and supervisors (3) per union
2. CSP Director (ex): Dr. Sabbir
3. CSP Advisor: Dr. Fazlur Rahim
4. Maternal Health Trainers (2)
5. CSP Ladies Group Attendants (3 per union)
6. LSLs Supervisors (1 per union)
7. Jari Singer Group

#### MOHFW Officers:

1. Civil Surgeon, Khulna: Dr. Rahman Shobuz
2. Health and Family Planning Officer, Paikgacha: M.D. Abdul Amin
3. Medical Officer, Paikgacha: Dr. Kazal Dan
4. MCH Officer, Koyra: Dr. Moshi

## SUB-TEAMS

1	2	3
<b>Dr. Warren</b>	<b>Dr. Gretchen</b>	<b>Donna</b>
Community Member	Community Member	Community Member
<u>Project Staff</u>	<u>Dulal</u>	<u>Faruk</u>
<b>Union:</b>		
Kapilmuni	Review SK & Jari(Paikgacha)	Godaipur
<u>Haridhali</u>	<u>Amadi</u>	<u>Rurali</u>

## SCHEDULE

<u>Tues.</u>	<u>Wed.</u>	<u>Thr.</u>	<u>Fri.</u>
Strategy Meeting	To Field 7 am: Team 1: Kapilmuni Team 2: Paikgacha Team 3: <u>Godaipur</u>	Team 1: Haridhali Team 2: Amadi Team 3: <u>Rurali</u>	OFF/REST'
<u>Sat.</u>	<u>Sun.</u>	<u>Mon.</u>	<u>Tues.</u>
Discuss field findings	Sustainability	Write	USAID

#### Review Survey findings:

Cross check with <u>qualitative data</u>	Look at FE recs. <u>for CS 8 and CS 9</u>
--	--

Saturday Sept. 13: CSS office

Participants: Full Team

1. Review evaluation process to date
  - a. Bring team up to date on process
  - b. Discuss: what other people need to be contacted  
what other information is required
2. Discuss Field Findings: Strengths and Weaknesses  
What were the most important achievements? most successful interventions?  
What did the project have most difficulty in implementing? what factors impeded
3. Review Survey Findings and Baseline:
  - Cross check data with qualitative data gathering results
  - Cross check data with quantitative data sources (government, project, etc.)
4. Review Mid-Term Evaluation Recommendations
5. Recommendations to-date: problem/concern identified, actions to be taken,  
organization which should implement, suggested date

---

---

Sunday Sept. 14: Khulna CSS office

Participants: Full Team

1. Review Final Evaluation recommendations from previous 2 CSP's (CS 8 & 9)
2. Discuss Sustainability: Review DIP sustainability plan  
Capacity building: community and government  
Discuss activities to continue: human resources required  
Discuss LSLS program: cost-recovery
3. Innovations and Lessons: **Jari** and Shishu **Kabar**
4. Other issues?
5. Success stories
6. Suggestions for improving final evaluation guidelines



---

## Health and Family Planning OFFICERS

1. What do you know about CSP?
2. What is your relationship with CSS?
3. What has CSS provided? (training, support, etc.)
4. Have you seen the data collected from the project?
5. How are the Family Welfare Visitors trained?
6. How do the family planning workers **relate** to CHWs and TBAs?
7. Are ferrous/folate tablets distributed by the FP workers?
8. Where are the gaps in the system?
9. What training is still required?
10. How could the two sets of home visitors work together more?
11. If CSS were to pull out tomorrow how would your work change? What would continue and what would stop?

Interview Questions: Union **OFFICERS and Supervisors**

1. Who do you supervise?
2. Who do you train?
3. Has the training been adequate?
4. How many are left untrained?
5. What is your overall impression of the CSP?
6. What training have you received from the project?
7. What other training do you need?
8. How do you judge your effectiveness?
9. Do you see change? What kind of change?
10. Do you have any success stories to share? Any stories that are unsuccessful?
11. How would you judge the participation of mothers?
12. Do you attend the mother's meetings?
13. What information or data has been shared with the mothers? with the community? with the government?
14. If CSS were to leave, what would you stop doing? what would you continue to do?
15. What are your major concerns, other issues?

Interview Questions:    **Maternal Health Trainers**

1. Who do you supervise?
2. Who do you train?
3. Has the training been adequate?
4. How many are left untrained?
5. How do you track untrained TBAs?
6. Tell us about their equipment (kits). How is the cord cutting tool prepared?  
Are you confident that the cord cutting is sterile?
7. What is being done to prevent maternal mortality?
8. Are there adequate obstetric care facilities and manpower?
9. Is there C-section capability?
10. Have you heard of the SK? What is it and **is** it working?
11. What is your overall impression of the CSP?
12. What training have you received from the project?
13. What other training do you need?
14. How do you judge your effectiveness?
15. Do you see change? What kind of change?
16. Do you have any success stories to share? Any stories that are unsuccessful?
17. How would you judge the participation of mothers?
18. Do you attend the mother's meetings?
19. What information or data has been shared with the mothers?
20. If CSS were to leave, what would you stop doing? what would you continue to do?
21. What are your major concerns, other issues?

Interview Questions:    **CSP Ladies Group Attendants**  
   **LSLS Supervisors**

1. What is your impression of the CSP?
2. What training have you received from the project?
3. Do you train others?
4. How is your effectiveness?
5. Do you see change? What kind of change?
6. Do you have any success stories to share? Any stories that are unsuccessful?
7. How would you judge the participation of mothers?
8. What do you do at the group meetings?
9. What are the effects of the LSLS? (improved children's health, esteem of women, etc...)
10. IF CSS were to leave, what would you stop doing? what would you continue to do?
11. What are your major concerns, other issues?

### **Home Visits:**

- Use HH registers and CHW registers as information guide
- Look at growth charts: understand growth chart? Attend GMC, attend SK?
- Look at mothers charts: ANC care, Vit A, **Iron/folate**
- Look for kitchen garden, does family know importance of Vit A
- ORT use and extra feeding
- **ARI** signs and treat appropriately
- Breastfeeding
- Where do you seek health care?
- Obstetric emergency, where do you go?
- What kind of snack foods do you give your child, if any?
- **Who** is your CHW?
- When did she last visit you?
- Do you attend mother's group? What do you do there?

Focus Group Discussion Guide Questions: **MOTHERS with Under-Five Children**

Date: \_\_\_\_\_ Place: \_\_\_\_\_ Total participants: \_\_\_\_\_

1. What do you feed your infants between 0-4 months?
2. Of <2s: Can we see your growth charts? When was the last weight?
3. Is child up-to-date Vit A? Did you get Vit A post par-turn?
4. Of those requiring follow-up, what did you do?
5. What foods do you give your child when you wean (adding calorie dense food?)
6. Do you have access to kitchen gardens? Are they Vit A rich gardens?
7. When your child has diarrhea, what do you do?
8. During diarrhea do you give your child anything else?
9. What are the signs of dehydration?
10. What are the signs of **ARI**?
11. Did you get 'IT immunizations? Who gets protected? Look at cards
12. Have any of you had antenatal care when pregnant?
13. Did you receive iron/folate?
14. In mother's groups what do you discuss?
15. Who delivered your baby? Was she trained? what kind of equipment did she use?
16. What foods prevent anemia?
17. During pregnancy when did you first get checked by your birth attendant?
18. Do you attend the mother's meetings? What do you discuss?
19. Who is your CHW? When did she last visit you?

Focus Group Discussion Guide Questions: CHWs and TBA's

Date: \_\_\_\_\_ Place: \_\_\_\_\_ Total participants: \_\_\_\_\_

1. What accounted for the increase in Growth Monitoring attendance?
2. How many of the children you are responsible for are malnourished?
3. What accounted for the increase in TT coverage?
4. What kinds of motivation do you give a pregnant women?
5. Was ironffolate available at health posts and at ANC?
6. Do you report births? deaths? Who do you report that info to?
7. Who are your supervisors?
8. Do they share the data with you? Do you know how you stand compared to others?
9. Are you trained? (TBA's)? Do you report those untrained? What happens?
10. Are those that attended births reported on the birth records?
11. Are TBA training kits provided?
12. What happens if a women starts hemorrhaging during delivery?
13. Where can women get C-sections?
14. How are you involved in the GMC sessions? Can you plot weights on Gr. Card?
- a 15. How do are you relate to the maternal health trainers and SK trainers? the family welfare assistants and family welfare visitors?
16. Any success story you would like to share?
17. Do you feel effective in improving the life of mothers and children in your area?
18. How is the picture different than three years ago?
19. What is the most effective motivation approach for mothers? home visits, mother's meetings or at GMCs? (most critical health education moment)
20. How could you be better supported? Any other issues you would like to raise?

Focus Group Discussion Guide Questions: **Community Leaders/fathers**

Date: \_\_\_\_\_ Place: \_\_\_\_\_ Total participants: \_\_\_\_\_

1. What is your impression of CSP?
2. How are you involved in the CSP? have you participated or-had the chance to?
3. Have the project officers shared the data regarding your community?
4. Are you aware of GMC? Do your children get weighed?
5. What food do you purchase for your children?
6. Have you attended an education session at the SK about nutritious foods?
7. Have you acquired new skills since working with CSS?
8. What other new skills would you like to know?
9. What kinds of support do you need?
10. If CSS left tomorrow what activities would you like to see continue?
11. What changes do you see in your community?



**Focus Group Discussion Guide Questions: Shishu Kabar Trainers and Volunteers**

Date: \_\_\_\_\_ Place: \_\_\_\_\_ Total participants: \_\_\_\_\_

1. Tell us about the SK?
2. When was the last SK?
3. Do you feel it is effective?
4. Is it reaching the malnourished children? Ballpark percentage?
5. Are you involved in the GMC sessions? how?
6. When do you weigh children? (an extra one just before the SK?)
7. What kind of scales do you use?
8. Do you see children returning to a malnourished state after SK?
9. What are the major constraints?
10. What motivates the volunteers?
11. What in your opinion is the main cause of malnutrition?
12. What in your experience is the major behavior which is a positive deviant?
13. What types of training did you receive? What new skills did you acquire in last 3 years?
14. What skills are you lacking?
15. How were you trained (volunteers)? Did you make home visits to malnourished children and to nourished? If so, what lessons did you learn?
16. Do you think it could be replicated beyond the project area?
17. Do you have any success stories to share? Any cases that fell through the cracks?